Smarter The Connected Home

FALL | WINTER 23

Net-Zero Nirvana

Intuitive design and energy-saving solutions set eco-friendly standards in the blistering desert heat.

Smart Living Revved Up

Performance car enthusiast puts intelligent home technology in the driver's seat.

When Heritage Meets High Tech

Historic London property embraces smart home tech while staying true to its roots.



contents





features

14

WHEN HERITAGE MEETS HIGH TECH

Historic London property embraces smart home tech while staying true to its roots.

32

ABOARD THE ARTEXPLORER: A FLOATING MUSEUM

Traveling "art festival" on the sea incorporates advanced technology to showcase artistic workings.

38

SMART LIVING REVVED UP

Performance car enthusiast puts intelligent home technology in the driver's seat.

54

NET-ZERO NIRVANA

Intuitive design and energy-saving solutions set eco-friendly standards in the blistering desert heat.

articles

6

32

THIS JUST IN The latest products, fresh offerings, and new developments from the Crestron Home[®] platform.

8

FINDING THE PERFECT FORM AND FUNCTION These buttons are definitely worth pressing.

28

HOW SMART SHADING CAN ADD VALUE TO A HOME The perfect window treatments are a sheer delight.

52

66



ENERGY MANAGEMENT AND THE FUTURE OF THE SMART HOME More power to you (and your digs).

CREATING WELCOMING HOSPITALITY SPACES Three luxuriously unique properties gratify guests from across the globe.

from the editor

⁶⁶ The home should be the treasure chest of living." - Le Corbusier, Swiss-French architect

A home is more than just bricks and mortar; it's a reflection of the individuals who reside within its walls. It is a canvas upon which personal stories are painted, showcasing our unique tastes, interests, and experiences. Each element is carefully selected to create a space that resonates with our individuality and where we find comfort, solace, and joy.

Increasingly, technology plays a significant role in enhancing the character and individuality of our homes, whether to emphasize a prized artwork collection, set the perfect mood to entertain guests, or simply make life easier by performing tasks automatically that help to keep us safer and more relaxed.

In this issue of Smarter Spaces, I'll introduce you to a Queen Anne Revivalstyle London looker with brains to match its beauty; you'll ride shotgun through a tour of an auto enthusiast's Midwestern marvel; and we'll voyage through an eco-friendly desert dwelling coined "America's First Sustainable Showhouse."

Each home is a flagship example of how technology breathes even more life into already exceptional residences, creating an idyllic sanctuary for those who dwell there.

Happy reading!

All brand names, product names, and trademarks are the property of their respective owners. Certain trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. ©2023 Crestron Electronics, Inc.

CAN A SMART HOME HELP SUPPORT YOUR HEALTH & WELLNESS?

Your sleep. Your energy. Your mood. Your emotional and physical health. A smart home can help improve and support these and other aspects of wellness. The Crestron Home[®] platform seamlessly integrates with the Crestron product ecosystem and best-in-class wellness technology from our industry partners. So, you can easily orchestrate your home's environment and how it interacts with the outside world to help support your health and well-being.

CLIMATE

WATER



LIGHT

5

SOUND

1

mes, and trademarks are the prop ocument to refer to either the entiti ames of others. Crestron is not re Learn more at crestron.com/Wellness

SECURITY

trademarks, registered trademarks, and trad eir products. Crestron disclaims any proprietar photography. ©2023 Crestron Electronics, In-

POWER



EDITOR Crystal Watts

DESIGN

Brett Lloyd

CONTENT CONTRIBUTORS

Ed Wenck Justin Lesperance Alice Wholey Rebecca Cirillo

this just in.

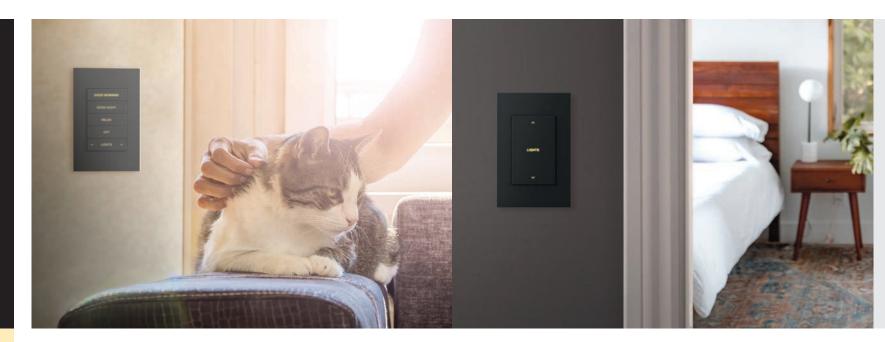
Get More with Crestron Home[®] OS 4

Embrace the future of smart living and let your home reflect who you truly are. Get ready to experience Crestron Home $^{\circ}$ OS 4 — the heart and soul of your smart home.

It's more than just an OS update; it's the fiber of connectivity that brings you closer to family and friends like never before. Here are just a few of the revolutionary improvements:

- Experience the reimagined interface layout, including improved graphics and icons.
- Call every member of the household to dinner quickly with whole-home paging.
- Filter and consolidate control of any room with fewer taps.
- Schedule events, automate tasks, and personalize to your liking.
- Mix-and-match digital and traditional lighting with ease, whether using Crestron's tunable fixtures, Philips[®] Hue[®] wireless lighting, or any other digital lighting platform of your choice.
- Enjoy additional ways to control your entertainment by voice using Xfinity[®] and Siri[®] voice recognition software.
- Other recent updates deliver more language options, new Apple shortcuts, a device health dashboard, and so much more.

Put Crestron Home[®] OS 4 at the core of your smart home for a more connected, effortless, and enjoyable life. Learn more at CrestronHome.com.



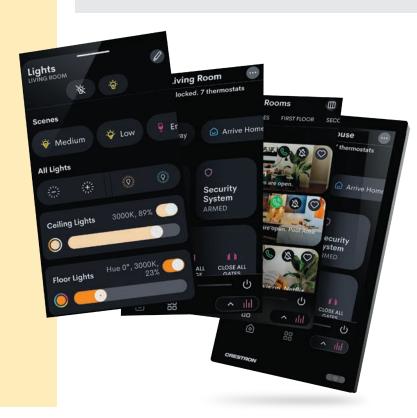
Rechargeable shades for every space

Motorized shades are the ultimate crowning glory of your smart home. They immediately instill that luxurious penthouse feeling. And with up to 12 months of battery life depending on size and fabric choice, our new lithium-ion batterypowered roller shades deliver that feeling all year long. It's the perfect solution for your upcoming home remodel or hard-to-reach windows. And as a bonus, you can rest a bit easier knowing the wireless design is much safer for your young children and pets.



Even more home audio solutions to provide entertainment everywhere

Audio has the ability to move everyone — to transcend language and cultural barriers and bring people together. With our newest smart home audio solutions, your audio can transcend the walls and barriers in your home so you can bring your entertainment into every space. Our new four-zone streaming amp provides multi-room audio in a smaller package with just as much power, perfect for smaller homes or apartments. If you have local sources such as smart TVs or gaming consoles, our latest surround sound eARC solution bridges that audio directly into your multi-room audio system, giving you the sound you deserve — in every space, from any source. And of course, streaming content is at the heart of our solutions; with the new Bluetooth[®] communications wall plate, you can easily share content directly to your in-room speaker system.



Next-Generation Horizon[®] Keypads and Dimmers: A new sensation in smart home control

A smart home is about more than what your house can do - it's also about how it looks and feels. The latest update to the Horizon[®] line delivers an improved tactile experience, additional color options, and refined finishes for the sophistication your dwelling deserves. Enjoy the beautiful refinements that elevate your smart home experience and accentuate your lifestyle and décor.



FINDING THE PERFECT FORM AND FUNCTION

FROM BETTER FIT AND FINISH TO A MORE LUXURIOUS LOOK AND FEEL, THE LATEST VERSIONS OF HORIZON® KEYPADS AND DIMMERS ARE SOME OF OUR BEST PRODUCTS FOR THE HOME.

Words: Ed Wenck

What's in a keypad? As it turns out, a lot.

The amount of research, design, engineering, and real-world testing that's gone into the new Horizon[®] keypads and dimmers is likely pretty eye-opening for the casual observer. The latest offerings in the line mark the next step in the progress of controls for the home: We've come quite a long way from the simple toggle switch that operated a single light circuit.

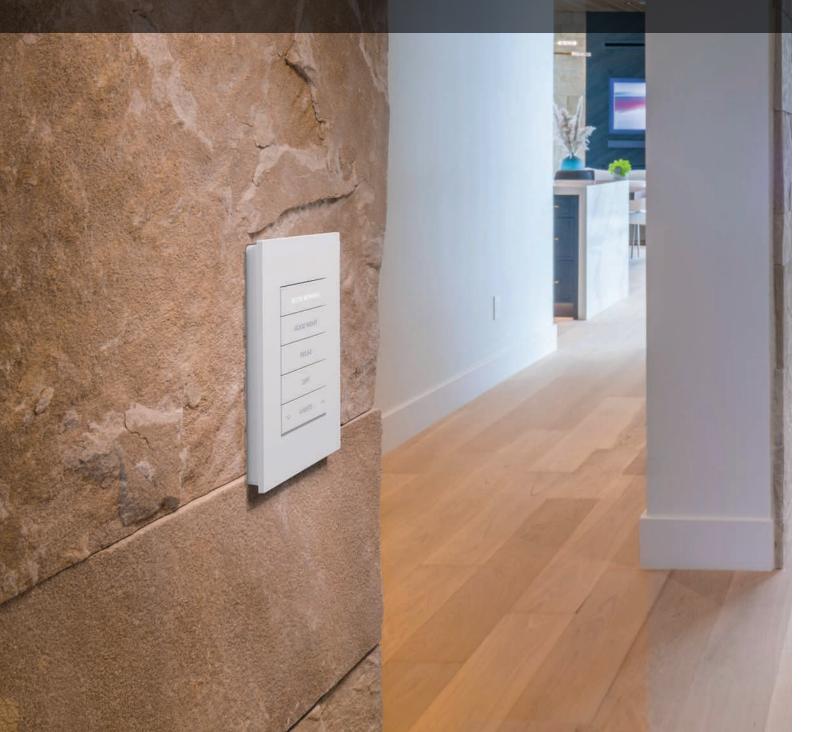
Crestron's Director of Business Development, JoAnn Arcenal, notes that a watchword common at Crestron is the phrase, "Constant evolution keeps us at the forefront of technology." She elaborates: "When we have something like a keypad, we're not just going to say, 'OK, this functions, we're done with it.' As we got our feedback from clients, dealers, and installers, we learned about things that elevated the experience. We dedicated resources and time to ensure we got it right."

The team at Crestron realized long ago that touch screens weren't necessarily suitable for every room in a residential technology project. Although the Crestron Home® OS offers a world of control from fixed screens to mobile devices, in some spaces, all that functionality isn't necessary.





"The first improvements the team took into consideration were the basics: How can we improve both the aesthetics and the tactile experience?"



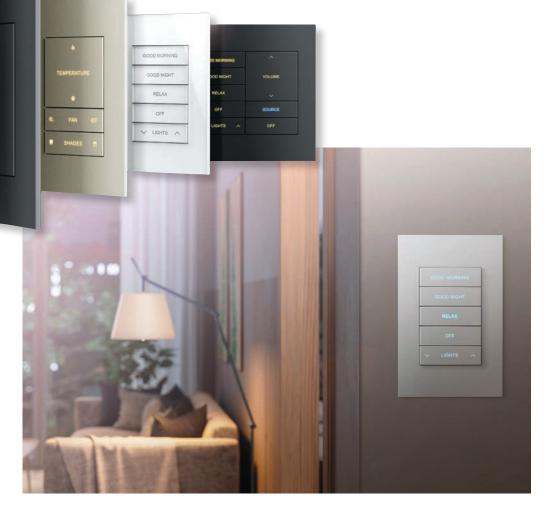
Think about a young child's bedroom, a walk-in closet, or any other area that just needs control for a few systems, and the need for a simple and intuitive — yet elegant keypad becomes apparent.

LIGHTS

This latest iteration of the devices gives the users and designers a wide array of button styles and configurations — and the line is packed with other improvements.

A Better Overall Look and Feel

The first improvements the team considered were the basics: How can we improve both the aesthetics and the tactile experience? "The buttons used to sit a little bit more flush on that keypad," says Arcenal. "Now, they protrude just a little bit more, making for a better 'touch." A slight adjustment to the mounting structure also yielded big dividends. "The new keypads are mounted on four corners instead of two," says Arcenal. This means the plate won't appear to lift away from any irregularities in the wall underneath the keypad."



Better Backlight

"We now offer color tuning in the backlights of these keypads," says Arcenal. This means that the keypads will fit the ambiance of a room's lighting at any given time. A bright, blue light won't blare from a wall plate in a space that's full of warm evening hues. The buttons can all be customized for different functions, too: "If you have your security system tied to one of these keypads, you can program a button to glow red when it's armed," she adds.

Less "Light Leak"

The new keypads are constructed so there's much less potential for light bleeding from the device's backlighting. "It seems minor, but it really makes a difference in a dimly lit environment," says Arcenal. Consider the attention to detail needed in a quality home cinema or media room, for example — these rooms often include features that mitigate anything that might distract someone from the movie or game they're watching.

Better Color and Finish Matching

"Colors and finishes are going to be more consistent throughout all of our manufacturing processes," says Arcenal. "That's a huge thing, especially when we're talking about the design community — their eyes are always on those details." That consistency of color and finish — not to mention maintaining an overall luxury aesthetic across everything in the home — are all aspects that have become top of mind for both the design and engineering teams.

New and Broader Choices for Engraving

"We now have a new standalone software that provides a lot more options for engravings," says Arcenal. In addition to new fonts and sizes, icons are available for younger users or those with limited vision. "We have international language options as well," says Arcenal. Testing in the field continues as well,

says Arcenal: "We do an unparalleled

amount of research on our products'

durability and ease of use, and we're

"It really is all about keeping a

finger on the pulse of what our

of the homeowner."

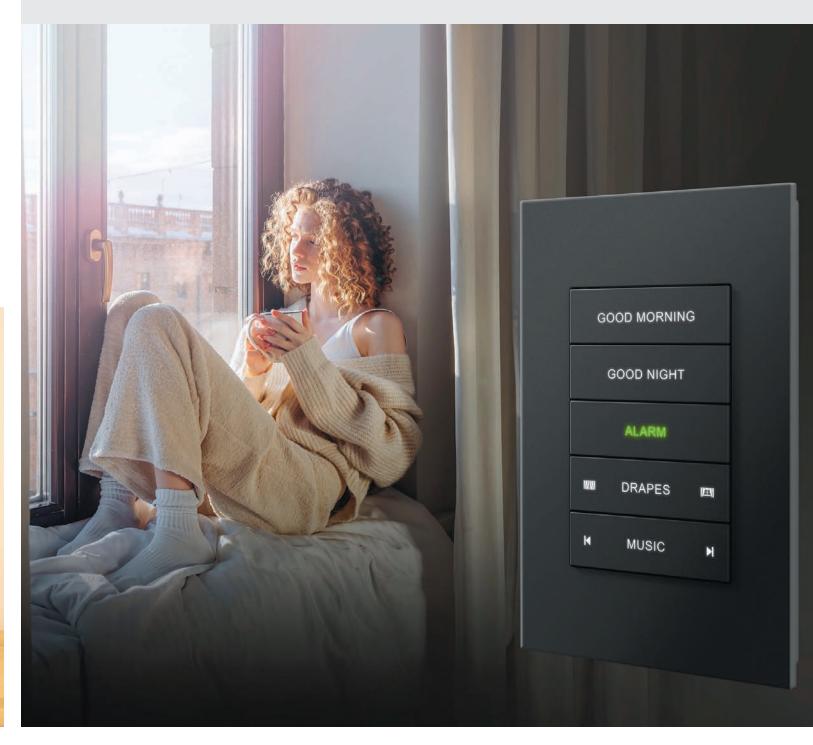
customers want."

constantly adjusting to meet the needs

What's on the Horizon for Horizon?

"We're planning on rolling out more finishes," says Arcenal. She further notes that the Crestron team is attuned to both user feedback and the latest design trends. "We are constantly asking, 'What is the finish of the year? Is it anodized metal? Is it this satin metal? What would you like to see?"

"It really is all about keeping a finger on the pulse of what our customers want."





How a historic three-story property in one of London's most desirable suburbs has been transformed into a fully automated and fabulously stylish family home.

Words: Crystal Watts

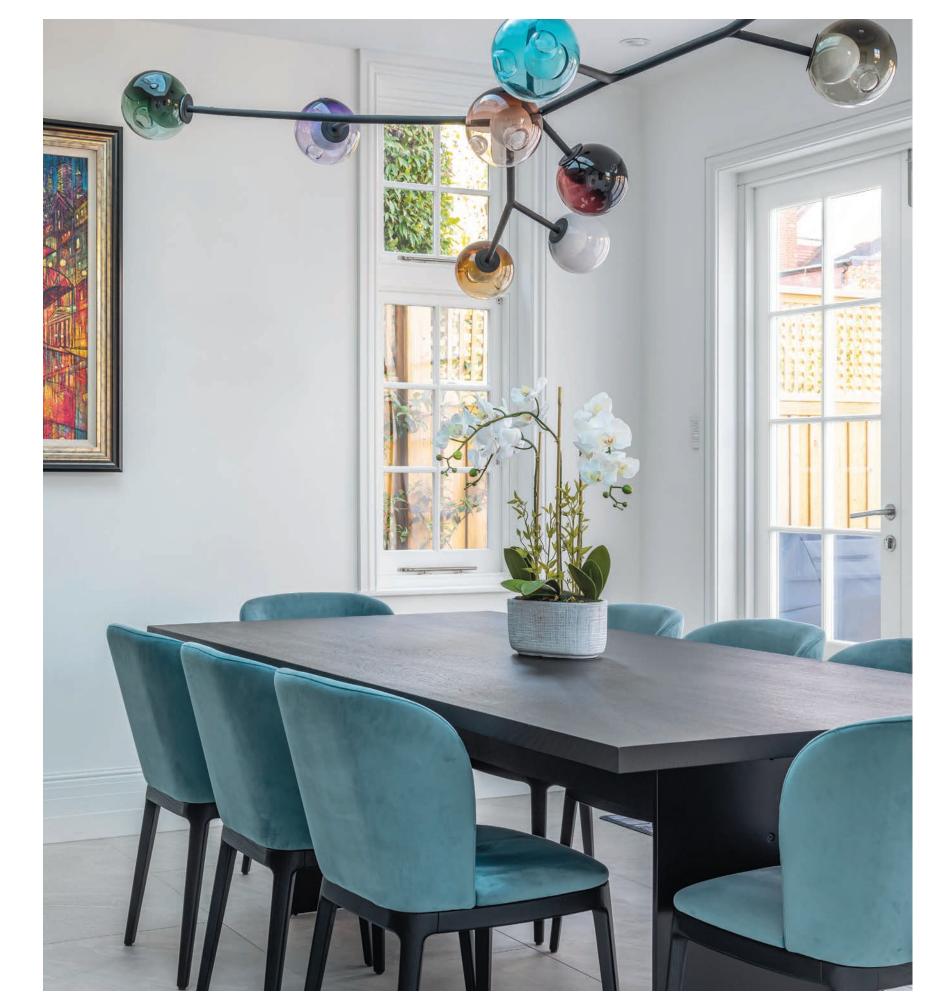
HOME PROFILE



SMART HOME PROFESSIONAL: Imperium Building Systems



Alice Poole Architects Nicola Parkin Design



14





hen professional couple Chris and Helen moved into an impressive Victorian semi-detached house in West London

at the end of the last decade, they decided to transform the interior into a masterpiece of modern chic and state-ofthe-art home automation. Tech-savvy Chris knew exactly what he wanted: a system that was fully integrated and unobtrusive yet would allow the family to control everything from music and lighting to home security, shading, heating, and cooling — easily and in whatever way they wanted.

They had experienced the pains of a poorly integrated system at a previous home, so at the project's outset, Chris hired Crestron partner Imperium Building Systems – a specialist in full smart home integration – to help him realize his vision. Imperium Director Chris Thorne says: "Typically, home automation installers focus on highend audio-visual systems, lighting, and shading, but their solutions often don't integrate well with the rather less glamorous systems responsible for heating and cooling. Customers either end up with 'wall acne' – where multiple controllers ruin the aesthetic of their home – or they hide controllers in a cupboard where they're hard to get to. Not only that, but the controls themselves are sometimes so complex that people need to call an engineer whenever they want to change anything."

To achieve the simple, unobtrusive integrated system the client envisioned, Imperium worked closely with the architect and interior designer throughout the project to ensure all the cabling and kit were installed and connected at the correct stages, as well as cleverly hidden (or, where visible, aesthetically pleasing). Before anything could happen, though, Chris and Helen needed to find the right architect.

Planned to perfection

Their 1880s house sits in Bedford Park, which has long been one of West London's most sought-after residential locations. This leafy 'garden suburb' was the first of its kind in the world, the brainchild of 19th-century cloth-merchant-turnedproperty-developer Jonathan Carr. After acquiring 24 acres of the site in 1875, over the next eight years, he grew it to 113 acres and built around 500 buildings in the Queen Anne revival style (which is actually a mixture of styles, including 17th-century Flemish and Dutch architecture). Many of the houses were designed by leading Victorian architect Norman Shaw and are characterized by a mix of red brick and tile, unusually shaped gables, elaborate chimneys, bay windows, balconies, and white-painted balustrades.

Since the 1960s, Bedford Park has also been a designated conservation area. In the UK, that means it's governed by strict local planning laws. Anyone who wants to do any work that might change a property's character, structure, or external appearance is likely to face a lengthy planning battle. The last thing Chris and Helen wanted was to spoil the historical nature of the area, so it was essential to find an architect respectful of Bedford Park's heritage — as well as one with experience navigating local planning regulations. It didn't take long for them to find Alice Poole Architects, a firm based in the heart of Bedford Park and responsible for most of the area's successful property renovations.

THEIR 1880s HOUSE SITS IN BEDFORD PARK, WHICH HAS LONG BEEN ONE OF WEST LONDON'S MOST SOUGHT-AFTER RESIDENTIAL LOCATIONS.



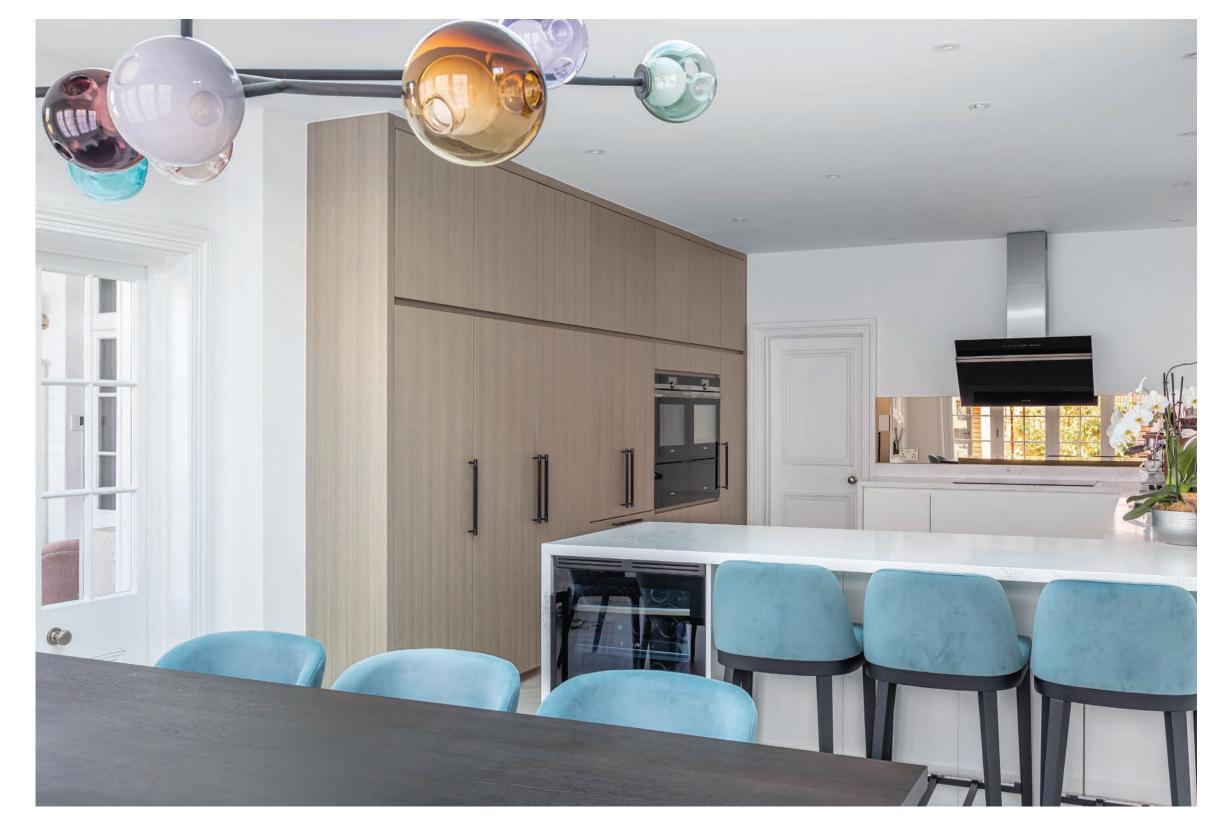




Alice Poole says: "The house is around 2,500 square feet (762 meters), with 17 rooms over three stories, and a single-story section at the back with a part-flat and partpitched roof. We proposed turning it all into a flat roof to create a large roof terrace. We also wanted to change the layout of the primary bedroom and en suite bathroom to give more convenient access to the terrace. There was a lean-to on the side of the house that we proposed turning into a roomier utility and storage room with a proper roof. The clients also wanted to put in a wine cellar and erect a home gym in the garden."

After preliminary discussions with the planners, Alice Poole submitted the initial application in September 2019. "They indicated they would only give permission for the original section of flat roof to be converted into a roof terrace, and we also knew permission for a new garden room would slow things down, so we left those elements out of the initial application to speed things up," she says.





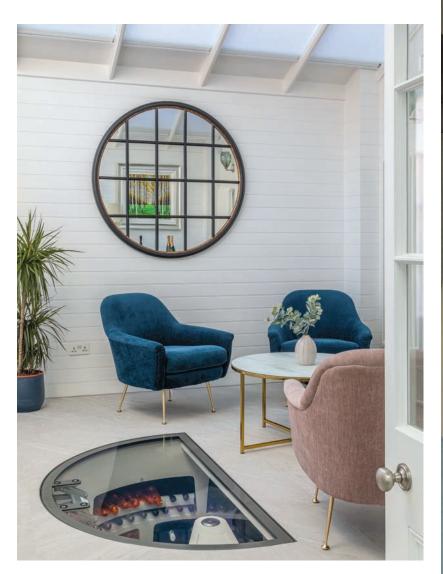
THE HOUSE IS AROUND 2,500 SQUARE FEET (762 METERS), WITH 17 ROOMS OVER THREE STORIES, AND A SINGLE-STORY SECTION AT THE BACK WITH A PART-FLAT AND PART-PITCHED ROOF. The rest of the plan was finally accepted in February 2021, the builders started work, and by the end of October of that year, the work was completed. Alice Poole subsequently succeeded in securing planning permission for the garden room, which is also now complete, and for the extended roof terrace, which was initially rejected but has recently been won on appeal. "That will now be extended later," says Poole.

Dazzling design

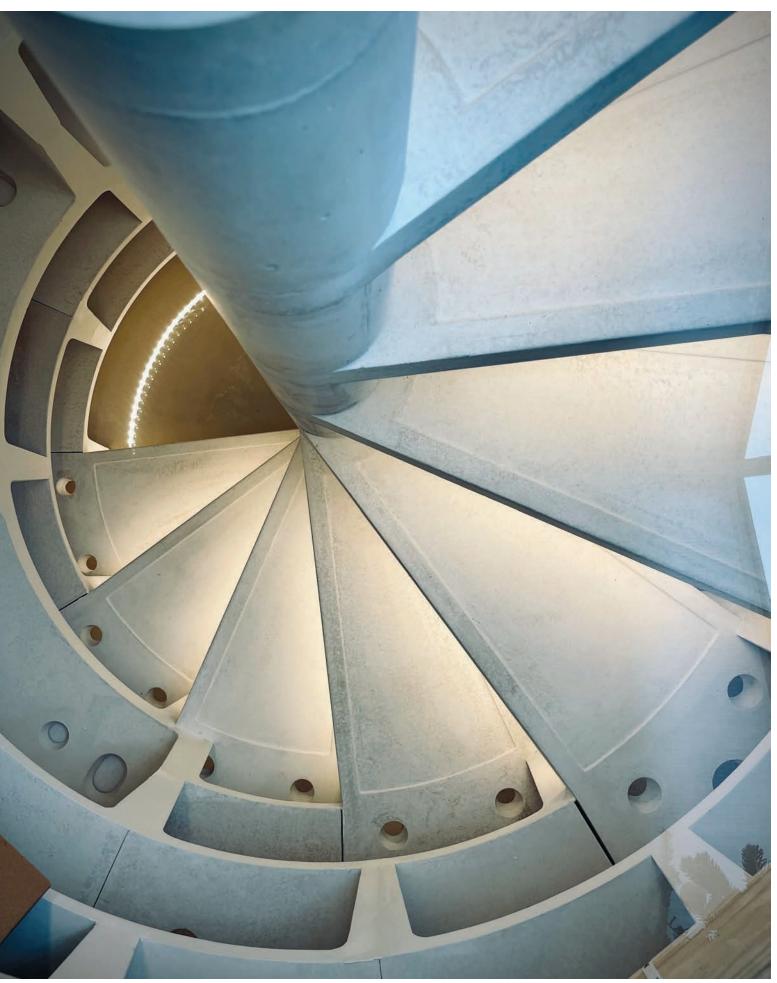
With permissions firmed up, Chris and Helen could focus on the interior design and smart home automation. For the former, they hired boutique interior designer Nicola Parkin (nicolaparkindesign.co.uk), with whom they'd already worked prior to the refurb. "Their brief was to be bold and contemporary in our thinking and not shy away from colors and interesting design elements. Over the course of a year, we worked on all furnishings, bespoke joinery, bathroom designs, interior tiling, and lighting," she says.

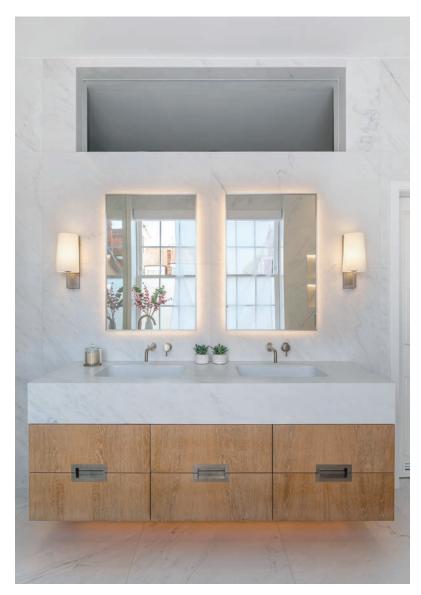
Among the property's many standout design features are the bespoke vanity unit in the primary bathroom, the colorful TV room with its teal joinery, and the stunning electric fire accentuated with flame-colored cushions and seat covers. A striking multicolored Bocci pendant hangs above the Amode kitchen table and chairs, and an eclectic mix of colorful furnishings, designer light fittings, and quirky lamps accentuate the fun feel of the property — as well as some of the clients' own contemporary artworks, such as the red Mini piece in the TV room. Alice Poole also contributed to the colorful design with one of her signature stained glass windows in the hall.

The temperature-controlled wine cellar, which houses some of oenophile Chris's extensive collection, was installed under the floor in the conservatory, boasting an impressive semi-circular walk-over transparent lid that forms part of the floor and opens on command to allow access via a stunning underfloor spiral staircase. The conservatory itself opens onto the rear garden, with its inviting hot tub and garden gym room.















Sleek, super-smart automation

Just as the clients stipulated, practically invisible smart automation technology facilitates simple but fully customizable control of all features of their home. That's largely thanks to the Crestron Home operating system, explains Imperium's Thorne. "Crestron gave us the ability to integrate all the systems and provide a very simple interface for the homeowners," he says.

Imperium also conducted a complete Wi-Fi[®] wireless technology heat-mapping survey to ensure every part of the home had unbroken, high-speed Wi-Fi coverage.

The family's love of music has been fully catered for with an integrated Sonos[®] multi-room audio system that swathes each room in high-definition sound. Coupled with the Crestron Home[®] control system, the homeowners can fine-tune their audio experience across the property using their mobile devices, Crestron remotes, or Amazon[®] Alexa[®] virtual assistant.

The Crestron-controlled lighting system casts a warm glow across the home, allowing the homeowners the freedom to create personalized lighting scenes that enhance the mood of every room at the touch of a button. The complementary Crestron and Somfy[®] window systems add another layer of sophistication. Automated blinds and curtains can be adjusted on command for the perfect balance of light and privacy.

For the occasional movie or sports match, the main house has a 75-inch Samsung[®] 8K TV and the garden room has a 65-inch Samsung TV, primarily for use with the gym and training equipment. Again, both can be fully controlled via Crestron Home OS.

A complete Ring[®] camera system offers full in-house or remote doorbell monitoring, with floodlight and spotlight cameras installed around the property to give 24/7 CCTV coverage of all external areas and approach points, which is also integrated to the central system. This provides the family with complete visibility and peace of mind, whether home or away.

Critically, the heating system — a combination of wet and electric underfloor heating, above-ground radiators, and towel rails — and the air conditioning systems from Fujitsu are fully integrated via a Tridium-based building management system (BMS).

24



JUST AS THE CLIENTS STIPULATED, PRACTICALLY INVISIBLE SMART AUTOMATION TECHNOLOGY FACILITATES SIMPLE BUT FULLY CUSTOMIZABLE CONTROL OF ALL FEATURES OF THEIR HOME. THE SYSTEM MONITORS THE LOCAL WEATHER AND ADJUSTS THE UNDERFLOOR HEATING ACCORDINGLY TO KEEP THE PROPERTY AT A COMFORTABLE TEMPERATURE ALL YEAR ROUND.







This ensures that single temperature setpoints manage both heating and cooling functions to provide maximum energy efficiency. They can be intuitively controlled for different zones of the property using high-end Zentium controllers by Polar Bear Design that sit flush to the wall, aesthetically integrated with a Crestron Horizon[®] keypad in a single unit that blends unobtrusively into the home décor. Furthermore, the system monitors the local weather and adjusts the underfloor heating accordingly to keep the property at a comfortable temperature all year round - all while ensuring energy consumption is optimized.

Numerous user-initiated routines are configured into the system for added convenience and energy efficiency, including a holiday mode, going out function, good morning scenes, goodnight sequence, watch TV mode, and the ability to reset the heating and cooling to predefined setpoints. The users can easily tweak any settings themselves without help, thanks to the simplicity and customizability of the Crestron Home OS. Imperium is also automatically alerted if any issues are detected that might need an engineer's attention, such as abnormal changes in temperature that could indicate a hardware failure. The firm can then check diagnostics remotely and decide if further action is required, minimizing any inconvenience for the homeowner.

Chris, Helen, and their teenage children couldn't be more delighted with their upgraded home, which meets all the

family's lifestyle requirements in terms of both smart automation and funky design. Meanwhile, any passersby admiring the historical splendor of their impressive 19thcentury property — which remains perfectly in keeping with Bedford Park's proud heritage — will, unless they happen to read this, remain in blissful ignorance of the 21st-century touches and technologies that lie within.

HOW SMART SHADING CAN ADD VALUE TO A HOME

Words: Ed Wenck

Smart shading has been considered something of a luxury item -a "nice to have" feature in a connected home. That's changing — and quickly. "The perception of smart shading has evolved quite a bit in the past few years," says JoAnn Arcenal, director of business development at Crestron. "Now it's becoming clear that the right shading options can help in a variety of ways: sustainability, energy efficiency, living in place, privacy, and many more."

The key is first understanding just what the term means — smart shades are electronically controlled window treatments that can respond to various user-triggered or automated functions. They also form part of a wholehome solution, says Arcenal: "This is technically part of a lighting system. We're balancing the artificial and the natural light in a home. We can program different scenes for different rooms in the home, and there are many options for programming and controlling those shades."

Controlling and Automating Smart Shading: Options Abound

For example, a single button on a touch screen can "manually" lower or raise the shades as the user wishes or trigger a pre-set level of shading. Other solutions are clock-based.

"There are astronomical clocks that are integrated into processors," Arcenal explains.

"So, yes, they are controlled by the time, but perhaps more sunset- or sunrise-based. That will change drastically between December and July and occur at different times in different parts of the globe — but all of that is adjusted automatically."

"There's also voice control," adds Arcenal, noting further that each solution isn't simply binary: You can command the shades to raise or lower by a certain percentage and not merely "open or close." "We can also integrate with either photo or

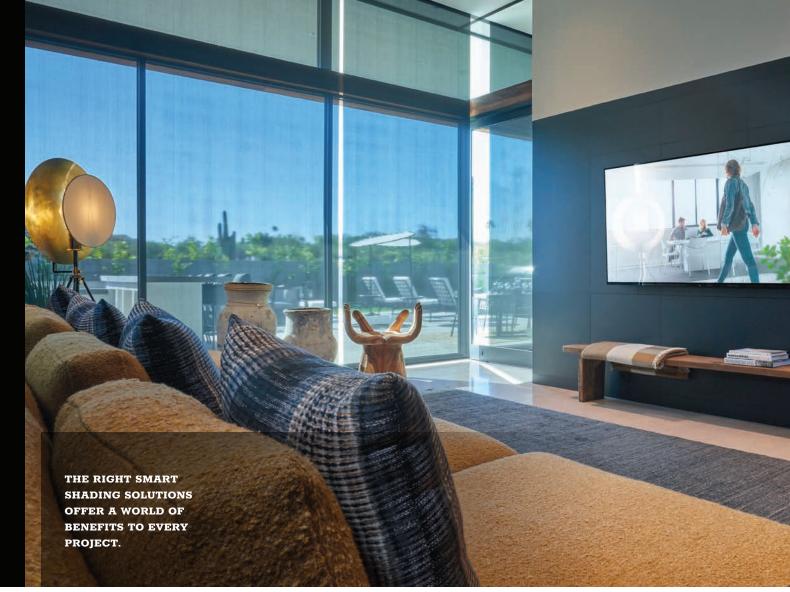
occupancy sensors for even more efficiency," says Arcenal. "We can balance those levels with a photo sensor to know exactly when and where artificial light must compensate and complement the natural light. With occupancy sensors, we can shut an entire room down where no movement's been detected after a certain amount of time."

When smart shading becomes part of a home's energy solutions, the results can be downright surprising. "This past year, we debuted two show homes that met net-zero status," says Arcenal. "Actually, one of them met net-negative 15 status," meaning that

the home was generating more energy than it consumed. "Automated shading was integrated into each of those projects and certainly contributed to the heating and cooling needs of each room." she adds.

Choosing the Right Fabrics

"The looks we're able to achieve with the available fabric options for these shading solutions are as varied as anyone's tastes," says Arcenal. But beyond aesthetic considerations, the choice of fabric is one of opacity. Arcenal suggests thinking about these questions: "What is the purpose? Do you want more of a transparent fabric that will allow you to enjoy the view





but also some protection from the elements? If you're looking at that, that's fabric defined as transparent."

That transparency is expressed as an "openness factor," in this case a range from 3 to 17% — that percentage is the amount of light that can pass through the fabric. "If you want a bit more privacy, that's 1 to 3% - translucent - and then your blackout or roomdarkening is 0%, allowing no light to come through. That's popular in bedroom applications where someone really wants that uninterrupted sleep."

Privacy and a solid sleep cycle aside, fabrics that let light in and keep heat out are also excellent aspects of an overall energy-saving solution. "There are dual-sided fabrics that are available," says Arcenal. "On the inside, you can choose from various colors, and on the side facing the exterior, you can have a reflective surface that keeps that radiation out."

Convenience — and **Assistance**

"One of the greatest benefits of smart shading is its convenience," says Arcenal. Raising or lowering each shade can become a chore, especially in larger, luxury homes - where window treatments can number well more than a dozen. However, there's another aspect of a manual "clutch": "Smart solutions have proven extremely beneficial for those living in place," Arcenal notes. "As someone's dexterity or manual strength starts to diminish, being able to still enjoy the sunshine and the sunlight, that natural light, without having to operate a manual clutch is really key."

The ability to control shading remotely is another benefit. Arcenal offers this example: "We've all had those days where perhaps we're out a little later than we had expected. So now we have some of the lights on in the home. We have our shades open because perhaps we only expected to be out for a certain amount of time. You can do nothing with a manual solution until you get home." With a smart solution, however, a quick tap on your mobile device solves the issue.

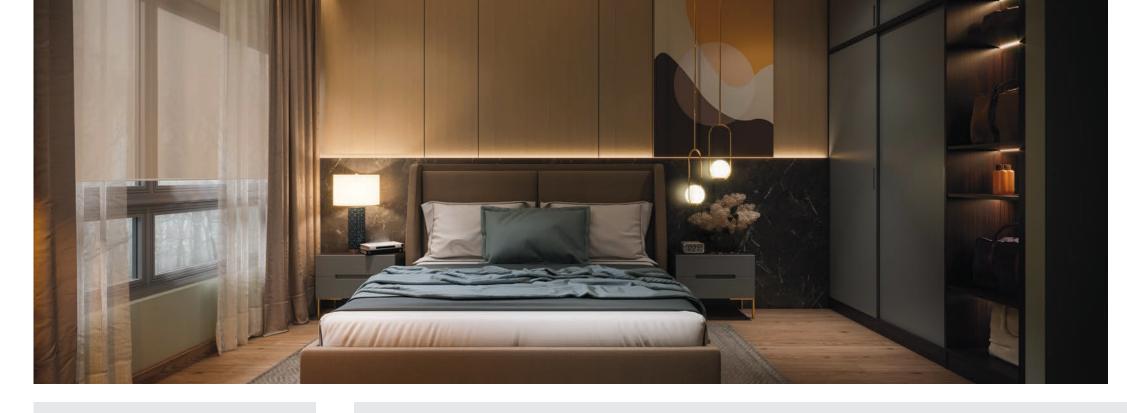
Shading is also becoming more important as some high-end clients move away from the idea of dedicated in-home cinemas in favor of multi-use media rooms. "Ambient light can take away from the impact of a display," says Arcenal. "And as we move toward 'entertainment everywhere' technology integrations where movies and shows can be shown in literally any room, having the shades lower as a display comes on — automatically — adds yet another layer of convenience."

Power Options and Professional Installation

Because shades can now be powered with various sources — from hardwired connections to onboard battery systems — shading solutions are applicable to projects no matter the construction phase. Arcenal outlines all the options: "You can have a hardwired shade solution from day one. You can have a manual solution that's pre-wired so that you can swap out the shade for a smart solution when the budget allows. And then, of course, you have battery-powered options for a remodel."

Understanding what window treatments are needed and where is also key to a successful smart shading solution. "As mentioned, blackout shades in the bedroom are popular. For other rooms, one might use shading to pump up the 'wow' factor. Perhaps a homeowner doesn't need such a dramatic look in the office and will opt for something simpler. Bathrooms may not need smart shading at all, although we do offer mold-resistant fabrics for those installations. It's definitely not an all-or-nothing approach when it comes to integrating shades into your space."

Consulting a pro will go a long way toward a successful smartshading integration. "There are specialized installation experts and integrators for almost every trade out there," says Arcenal. "Shades are no different. You need someone trained in this kind of technology who knows this is not just hanging a window covering. There are so many different facets to this that must be considered — but the right smart shading solutions bring a world of benefits."



What's Net Zero?

A net zero-home "produces as much energy on an annual basis as it consumes," as defined by the Zero Energy Project (zeroenergyproject. com). A net-zero home usually utilizes renewable energy sources — solar panels on the roof, for example — to push as much electricity back to the grid as it draws. These homes generally leverage the latest energy tech to run as efficiently as possible.

Fabrics that let light in and keep heat out are also excellent aspects of an overall energy-saving solution.





ARTEXPLORER: . .

Behind the technology that powers the centerpiece of a traveling "art festival."

Words: Ed Wenck

PROFILE



INTEGRATION PARTNER:

Connecting Technology ArScénique

AV & ANIMATIONS:

Guillaume Verdier

NAVAL ARCHITECTURE:

ARCHITECTURE & DESIGN:

Alex de Beaufort



hen Frédéric Jousset was approaching his 50s, he decided it was time to turn his attention to his first

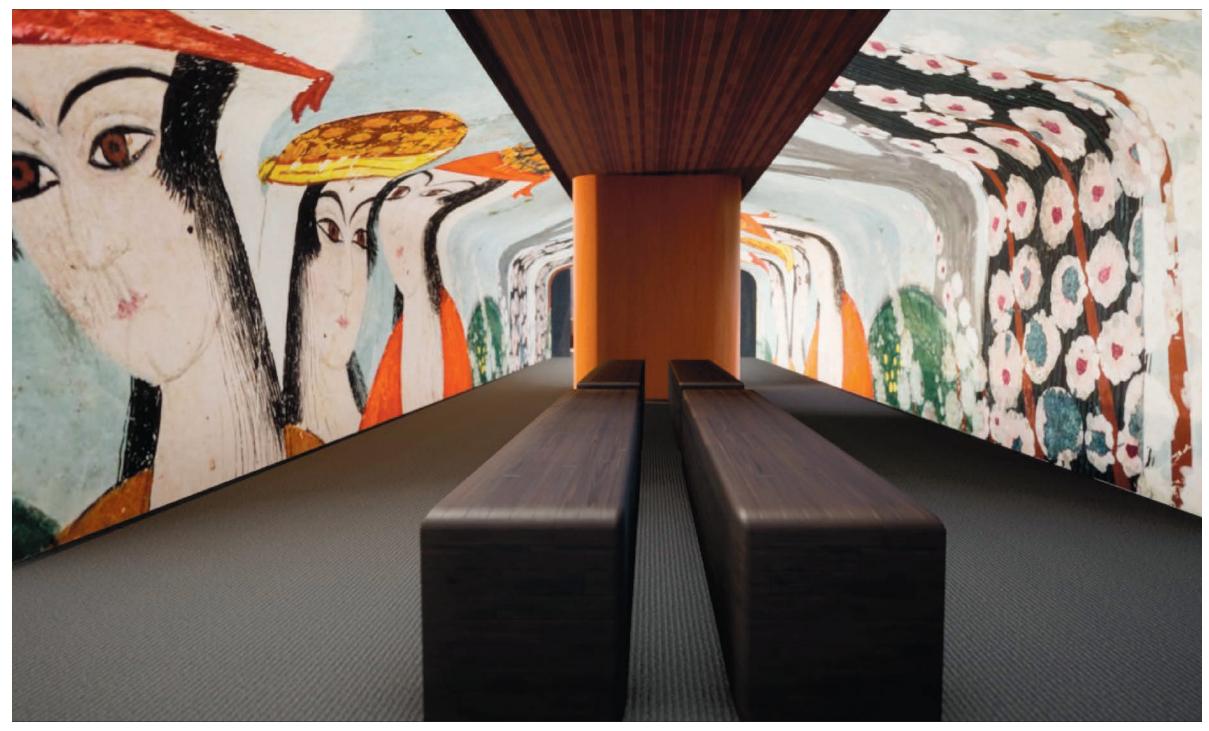
love — art. A co-founder of Webhelp, an IT support firm that morphed into a call center operations and business support enterprise, Jousset harbors a lifelong love of fine art. His mother, in fact, was a curator at the Centre Pompidou of contemporary art, and Jousset himself has become an integral part of the Louvre, working in the museum's administration, acquisition, and outreach efforts.

Webhelp had grown into a multi-billion-euro interest with more than 50,000 employees when Jousset changed direction. By 2019, he'd determined it was time to use his personal resources to help bring fine art to a broader audience. He founded the Art Explora fund, "an international foundation that inspires new encounters between arts and audiences — locally, nationally, and internationally." One of those new encounters is being created right now: the ARTEXPLORER sailing catamaran, a yacht that will do double duty as both a charter vessel and the immersive centerpiece of a traveling museum when it launches later this year.

An "Art Festival Village"

The center "tunnel" of the catamaran will be encased in removable LED panels that surround the viewer, displaying 16 meters of high-resolution images that support the masterworks that accompany the catamaran on its travels. "She will be docked in very famous places in the next two years," explains Guy Butterati, VP and co-founder of the integration firm Akumendo. The yacht will spend half of each year going from port to port around the Mediterranean, supported by what Butterati calls an "art festival village" the actual artwork on display will travel in portable viewing structures onshore alongside other amenities, such as food trucks and the like.

"Admission is free on a first-come, first-served basis," says Butterati. He adds that the first show will be thematic: "The central topic is going to be the representation of women in Mediterranean art through the ages." From ancient Greece to mid-19th century artists, the female form, as interpreted via sculpture and painting, will be on display for the fall 2023 to 2025 tour, the yacht's first. "Although the owner's tastes lean to the contemporary, the mission of Art Explora is to be 'period agnostic,'" Butterati says.



IMAGERY: ART EXPLORA

WHEN THE YACHT IS CONFIGURED FOR MUSEUM DUTIES, THE PRIMARY PRESENTATION IN THE "TUNNEL" IS AN ADVANCED DIGITAL SHOW WITH MULTI-CHANNEL AUDIO AND A MASSIVE LED IMAGE.



"No More Front Tears" pays homage to the work of French artist Laure Prouvost.

THE ONBOARD SYSTEM NEEDS TO TIE INTO THE ONSHORE VILLAGE, TOO. "IN ADDITION TO THE VESSEL, THE SYSTEM NEEDS TO DELIVER CONTENT TO THE DOCKSIDE DISPLAYS," SAYS CASANOVA. Why a Floating Museum?

The Art Explora group explains why they put a yacht at the center of their traveling art show:

- We believe mobility is a powerful tool to reach new audiences and increase engagement with the arts.
- Boats are a powerful symbol of exploration with a unique history of adventure and discovery.
- On this journey, we can connect worlds, peoples, and cultures, creating new opportunities for co-creation, participation, and exchange.
- We can reach new audiences: 60% of the world's population live less than 60km (about 37.28 miles) from the coast.

The Onboard Technology

Although the yacht is massive — the main mast will top out at more than 55 meters — integrating technology solutions into yachts is always a cramped affair. "It's an incredible challenge to find space for all the devices and cabling a project like this demands," explains Jean-Pierre Casanova, Akumendo's CEO (and co-founder). Fortunately, Butterati and Casanova have years of experience with marine integrations and a tremendously helpful partner in the animation and AV firm ArScénique.

When the yacht is configured for museum duties, the primary presentation in the "tunnel" is an advanced digital show with multi-channel audio and a massive LED image. "The space can accommodate more than 30 people at once, surrounded by an incredible display with excellent color saturation and contrast," says Butterati. Designed to handle roughly 2,000 visitors per day, video and audio sources (including presentations via headphones) on the rest of the boat and on shore deliver a variety of immersive content designed to be as educational as it is beautiful. The LED display — a series of curved panels ingeniously held in place by magnets — can be removed, and the space then becomes a living, lounging, and movie-viewing area for the owner and guests when the catamaran sails for leisure.

An Adaptable System

He explains the integration process: "First, we built the AV and IT systems for the guests. The challenge was then making that system adaptable when the removable panels of the LED tunnel are installed for its museum missions." By working with Crestron to find solutions that could handle, for example, both 5.1 surround sound entertainment options for chartered guests and audio support for the LED display, Butterati feels they've achieved a multi-purpose solution that's state-of-the-art.

The onboard system needs to tie into the onshore village, too. "In addition to the vessel, the system needs to deliver content to the dockside displays," says Casanova. "One of the biggest challenges was the distance between the LED panels and the main equipment rack. Fiber optics did the trick," says Casanova.

"But beyond that, we also had to craft the perfect control and automation systems to handle everything from lights and shading to the needs of the crew and chartered guests when the yacht is at sea," he notes.

Find more information here:

https://teamspaces.nooscorp.com/artexplorer-presskit

revved

When business owner and performance car enthusiast David Shapiro decided to design and build his fully automated dream home, he realized he could let his imagination race more freely if he put intelligent tech under the hood with astounding results.

Words: Crystal Watts

HOME PROFILE

PROPERTY LOCATION:





Simplicity



PHOTOGRAPHY: JOSIE HENDERSON, JOSIE DELL PHOTO



Josh, turn on the garage," commands David Shapiro. "I'd be happy to, David," replies a disembodied voice eerily reminiscent of HAL, the sinister computer in Stanley Kubrick's "2001: A Space Odyssey." Unlike HAL, however, David's AI-powered voice assistant

Josh is wholly obedient and has no malicious intent. Unlike more well-known voice assistants, Josh.ai doesn't need the internet to work either. It's a self-contained technology, seamlessly integrated with Crestron Home[®] OS that automates control of almost every aspect of this amazing property. As soon as David issues his command, the lights gradually brighten to showcase the breathtaking display of luxury cars gracing his six-car indoor garage. NESTLED IN THE MIDDLE OF A 10-ACRE WOODED PLOT LESS THAN HALF AN HOUR SOUTH OF KANSAS CITY, MISSOURI, THE 9,600-SQUARE-FOOT HOUSE COMPRISES A MAIN LEVEL AND A BASEMENT SEPARATED BY A FLOATING STAIRCASE.

11

There's a trio of high-end Porsches, a Lamborghini Huracan Performante, and a couple of Ferraris — including David's pièce de résistance: a gleaming red, year 2000 issue, six-speed 550 Maranello in pristine condition. The garage also features a state-of-the-art sit-in racing simulator with a curved surround screen. A keen race driver in his spare time, David uses this to practice on unfamiliar racetracks virtually before tackling them in real life. Colorful performance car logos adorn the garage walls, and the adjoining living space even boasts a custom-made coffee table with a prototype Ferrari 550 engine as its base.

If cars aren't your thing, there's plenty else here to make you gasp in awe. Nestled in the middle of a 10-acre wooded plot less than half an hour south of Kansas City, Missouri, the 9,600-square-foot house comprises a main level and a basement separated by a floating staircase.

Awesome inside and out

As well as the 3,000-square-foot indoor garage, there's a sevenseater home theater with a 155-inch screen and a surround sound system that blows away most professional theaters. Other highlights include a fully equipped gymnasium, a pool table, an extensive wine cellar with an adjoining tasting/ entertaining area, and a Yamaha[®] grand piano that plays itself. The piano can even download additional recorded instrumental parts and vocals to stream through the house's Crestroncontrolled sound system as it plays for an authentic concert experience. Then there are the four spectacular bedrooms, four full and two half bathrooms, stunning living and dining spaces, fully equipped kitchen upstairs and separate downstairs bar-kitchenette, artwork-lined hallway, machine room to house all the out-of-sight control tech, 900-square-foot storage area, and an additional two-car garage.

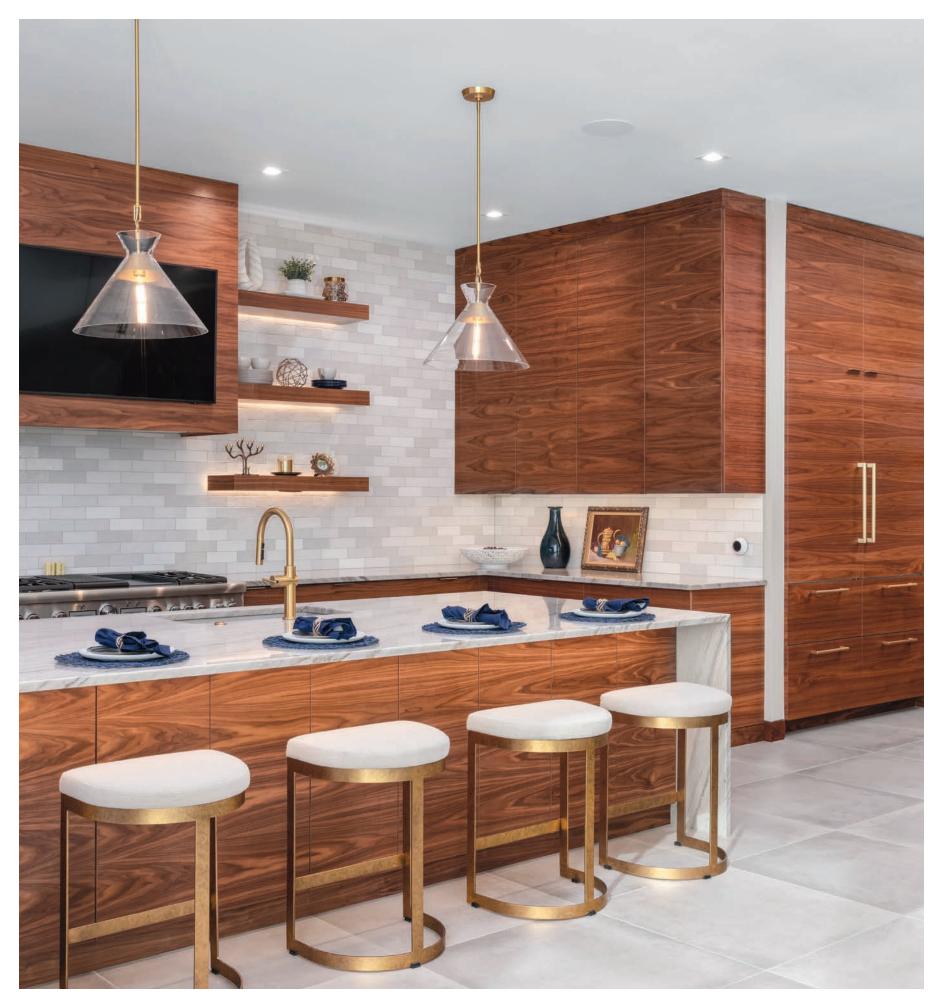
The breathtaking outside spaces, set over three levels, include a swimming pool with Crestron-controlled fire pits, several seating and lounging areas, a putting green, a concrete ping-pong table, and a quarter-mile walking path that winds through the Shapiros' sumptuous, leafy grounds. The pathway can be illuminated on command or automatically via sensors should anyone take a dusk stroll or walk the Shapiros' two dogs.

There's also an outdoor grill area that opens to the kitchen and a covered patio with another TV and immersive sound system adjoining the house's dining area. "OK Josh, bring the outside in," says David on our virtual walkthrough. The sliding doors to the patio glide ajar while screens simultaneously cover the open sides of the patio, protecting it from the elements and any nasty biting insects that might otherwise interrupt an evening's entertainment. The Crestron Home[®] OS gives the Shapiros simple, flexible control over pretty much everything in their property, whether initiated by an automatic routine, a voice command to Josh, an app on a smartphone or tablet, a Crestron handheld remote, or one of the home's multiple Crestron touch screens. The system has been fully integrated with all lighting, shading (including a vast bank of 17-foot floor-toceiling automated blinds), radiant heating, ceiling fans, air conditioning, gas fireplaces, entrance security, and extensive entertainment technology. The latter includes several large, wall-mounted flatscreens, a plethora of hidden surround sound speakers and subwoofers inside and out, the home theater, and the Yamaha player-piano.









From dream to reality

You might think such an impeccably designed luxury home was the product of an army of architects, interior designers, and project managers. Remarkably, though, David and his wife Jeanne basically designed and managed the whole development themselves, from drawing up the plans to sourcing materials, directing contractors, specifying automation requirements, and designing interiors. It all began in 2019 after their nowgrown children left home when the couple decided to escape the bustle of Kansas City for a quieter, more expansive home on its rural outskirts.

David, who runs a medical linen business, has also commercially developed several properties, including three custom residential homes. When it came to building his own, he spent around 10 months drawing up the plans and locating and purchasing an ideal plot near the southern tip of the leafy Kansas City suburb of Stilwell. "The plot we found was completely wooded. We carved out about an acre and a half around the house area and cleared a long path to the front. We love that it's so quiet, peaceful, and secluded from the highway if we didn't have the front entrance, you'd never know we were back here," he says.

David and Jeanne hired long-time area architect and close friend John Gaar AIA to put his magic into the sleek, modern exterior with its floor-to-ceiling glass windows and doors, David says, "I did the bulk of the



architectural floorplan myself. I also laid out all the structural plans. But, since I'm not an expert, I employed a structural engineer to size up all the steel and ensure it was structurally sound. After building several homes and studying modern/contemporary designs — mostly in California and Napa Valley — as well as an exhaustive collection of Google images, I had plenty of inspiration."

Jeanne, meanwhile, was solely responsible for the interior design and furnishings. David says: "She did an amazing job. As good as any professional. Our idea was to make it very modern but warm. So, we incorporated a lot of wood and stone into the house – as much natural material as possible. We sourced a fair amount of stuff from La Jolla in California. It's a fairly minimalist building with a lot of open space, so it needed some big pieces. We also spent about 10 days in Santa Fe, New Mexico, loading up on new original artworks we liked."

"OUR IDEA WAS TO MAKE IT VERY MODERN BUT WARM. SO, WE **INCORPORATED A** LOT OF WOOD AND **STONE INTO THE** HOUSE - AS MUCHNATURAL MATERIAL **AS POSSIBLE.**"

WHILE RELAXING ON THE PATIO OR BY THE POOL, THE HOMEOWNERS CAN ISSUE A VOICE COMMAND THAT TELLS THE FIRE PITS TO LIGHT.



THE RESULTS HAVE BEEN WELL WORTH ALL THE EFFORT. EVERYTHING IS INCREDIBLY SIMPLE TO CONTROL.





Super-smart with Simplicity

State-of-the-art automation was key to David from the outset. Having deployed Crestron technology in previous developments, he was already aware of the power and flexibility of Crestron Home® software. However, to ensure systems were expertly integrated and installed, he needed the help of a seasoned professional. During a tour of artisan homes, he and Jeanne were especially impressed with the high-end residential work of Kansas City-based home automation specialist Simplicity, which has long been a certified Crestron Design and Integrator firm. David approached the firm's owner Joe Acree, who has been intimately involved with the project ever since. "Joe and I started to design this thing even before the site work began," says David.

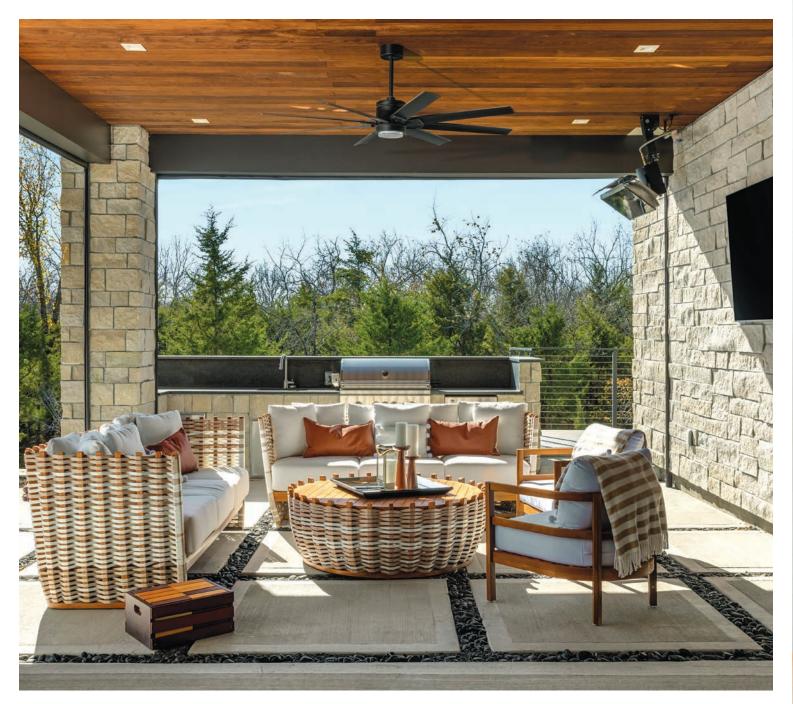
Construction began in June 2020. By October 2021, the house was sufficiently finished for the Shapiros to move in, although it was another six months until work was finally completed. Simplicity's Joe Acree says it has been one of the most challenging, albeit rewarding, projects he's worked on. "David's very creative, loves quality, and wants things to be absolutely perfect. When you have a customer with a lot of imagination, you can push things pretty far. Originally, we had the house spec'd out for about 6,000 square feet, but David decided to add another 3,000 square feet in the basement and put in the home theater. The amplification for that alone was so substantial we had to run extra power circuits. We also have more amplification outside than you would inside most houses — there are 36 exterior speakers and four subwoofers," says Joe.

The outside lighting, fire pits, and audio systems alone took more than 200 hours to install. Giving the ability for visitors to chime in at the gate and alert the family via the Crestron touch screens wasn't straightforward either. "Because the entrance is 750 feet from the house, it needed a small network of its own, and we had to install fiber lines running all the way to the gate," says Joe.

The results have been well worth all the effort. Despite the project's complexity, everything is incredibly simple to control. Crestron Home[®] OS manages every inch of the property. It allows David, Jeanne, and their guests to easily control any area of the property however they want, which is usually by asking Josh. For example, if they're in the living space next to the indoor garage, they can issue a single voice command to automatically dim the lights and lower the shades, switch on the flatscreen TV, and start playing a particular movie. If they're in the wine-tasting area downstairs, they can command the piano to start playing. If they're on the patio or by the pool, they can tell the fire pits to light. "Even with our home's special effects, the system remains extremely simple, which was very important to me," says David.







Racing with possibilities

The house might be finished, but David's imagination is still racing, and he has other future tech plans for the home. "Although the basement wine cellar is encased in concrete, it can sometimes get a little warm in the summer, so I'm contemplating putting in a temperature control system," he says. He is also already talking to Joe about setting up the basement wine-tasting space so they can have a remote sommelier "beamed in" virtually.

Perhaps not surprisingly, given all the work and effort David and Jeanne have put into this incredible home, they've still not yet had time to host a sizable gathering to show off the house's capabilities to their fullest. Although by the time you read this, they will have. "Our exotic car club is going to come out here later in the summer for a pretty large party," says David.

Give it a few more years, and who knows, Josh might even have a robotic body and serve everyone drinks.



The next generation of audio is here. And there. And everywhere. Because our newest **DM NAX[™] Audio-over-IP products** send the highest-quality sound throughout your whole home. Stream content from all your favorite sources to all your favorite spaces even easier. Save room with a streaming amp that offers big power in a small package. Have the ultimate entertainment everywhere experience.

All brand names, product names, and trademarks are the property of their respective owners. Certain trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. @2023 Crestron Electronics, Inc.

even more ENTERTAINMENT EVERYWHERE.



ENERGY MANAGEMENT AND THE FUTURE OF THE SMART HOME

FROM MONITORING TO CONSERVATION TO BACKUP, POWER MANAGEMENT SYSTEMS LIKE ADAPT ENERGY ARE VITAL TO A ROBUST HOME **AUTOMATION PROJECT.**

Words: Ed Wenck

Energy management in the smart home industry is gaining

in popularity: revenue from these solutions is expected to grow from nearly \$3 billion last year to a whopping \$5.33 billion by 2027 in the U.S. While homes with some kind of energy management technology account for almost 17% of households now, that number will top well over 44% in the same period.¹

Widespread adoption of these solutions shouldn't be surprising — after all, energy is literally the "oxygen" of the smart home, and ensuring that power can be monitored, controlled, conserved - and maybe most importantly, backed up - is vital. The U.S. electrical grid is far from perfect and, in some places, woefully unreliable. Severe weather events compound the problem.

Couple all this with a world where both demands for energy and environmental concerns are growing, and the need becomes apparent. Simply put, the right solution can save a homeowner tremendous money. Alex Teague, COO of PanTech Design — creators of Adapt Energy® integrated home energy management system — illustrates the issue: "If you look at markets like California, there are variable rates throughout the day. You've got EVs (electric vehicles).

HVAC, pools, and other things that draw very heavy electrical loads."

The helpfulness of a system such as Adapt Energy becomes immediately apparent. "One of the features of Adapt is that the system has builtin scheduling that will allow you to lock those loads off," says Teague. For example: Plug in your EV during a high-cost demand cycle, and the system will wait to draw a charge until the rates drop. Manual overrides are still functional, though, if the homeowner needs an immediate charge. By understanding just what systems in a home need power at what times, a solution like Adapt Energy is accounting for every single watt and dispersing those loads as efficiently and carefully as possible.

Controllable Breakers are the Kev

The Adapt Energy system — borne out of the larger Adapt family of software and hardware solutions that integrate seamlessly into the Crestron Home[®] OS — is "an enclosure that goes either in-wall or on-wall and, at a basic level, controls loads through circuit breakers," Teague explains. "A single unit controls 16 breakers," says Teague, "but then we also leverage Crestron Home and other systems that we can communicate with through the Crestron hardware platform."

Those controllable breakers comprise the heart of the system. "A controllable breaker is, in our opinion, the most effective way to ensure that a load is in the 'off' position," says Teague. "When you're talking about keeping things running and doing so in the most effective way, the analogy that I always use with the breaker is that it's the hammer. If you hit something with a hammer, it's going to go off. It is a surefire way to make sure that that load is going to go off and then back on. It's not like a cloud-based system when you have any event — let's say, a power outage - you must then communicate up to the cloud, get a signal back, and then do something. With a wired breaker, there's never a question."

Those breakers are easily switched - and monitored - by the end user. "We always recommend that you have energy monitoring that can show you what every single load is doing." Much like leak detection in a smart plumbing system, a homeowner can see just where the smart home is drawing power. That includes

"vampire" devices — those parts of a residence that pull electricity even when not in use.

The System in Action

Teague walks through the process once the Adapt Energy system is up and running: "Once the basic connection's established, you instantly have access to your profiles, which can be configured through our software. When there is an event, it allows the end user to respond quickly with what they want to happen. It will do things independently without any input, but it gives the end user the option to respond 'yea or nay' on a given function."

"But it also gives them granular control of all the loads in their system. For instance, if the homeowner has a grid loss, the system asks, 'Do you think this is going to be an extended outage?' If the answer is no, there's the option to keep most of the circuits on and only turn off a few unneeded appliances." If it's a yes, the system will be stingier — and PanTech Design has a sister company that specializes in batteries, meaning that end-to-end

backup energy solutions are available from the firm. (Adapt also has a deep integration with the sonnen ecoLinx™ battery system and a variety of solar options, too.)

Of course, the system can handle outages and other events automatically. "Some of our clients have multiple homes. If the internet's out, the system in the home will operate independently and do what needs to be done to ensure that sump pumps are still running, refrigerators are powered up, and so on."

And every aspect of the Adapt Energy management system is designed to integrate seamlessly with the Crestron Home OS. "We've been working with Crestron even before the Home platform was rolled out," says Teague. "In fact, our CEO, Troy Morgan, worked for Crestron before he founded PanTech Design."

Learn more at PanTechDesign.com and CrestronHome.com.

¹ https://www.statista.com/outlook/dmo/smart-home/ energy-management/united-states#analyst-opinion



3:28 1

Adapt Energy

Battery Charg

Weather Alert Adjust Energy System? Test Alert Protect My Home Ignore This Alert For Now



Controllable circuit breakers comprise the heart of the system.

net-zero nırvana

Crestron is proud to have played a part in the world's first stateof-the-art, energy-selfsufficient show home, a stunning Arizona desert property that proves sustainability doesn't have to mean skimping on luxury and comfort

Words: Crystal Watts

54

HOME PROFILE



Sonoran Desert, Arizona

SMART HOME PROFESSIONAL:

Monarch AV

ARCHITECTURE:

PKA Architecture & Cosan Studio

CUSTOM HOME BUILDER:

A Finer Touch (AFT) Construction

INTERIOR DESIGN:

K&Q Interiors, Fuse Living, and Laura Madden



uilding more sustainable, energyefficient homes will play a big part in efforts to curb climate change and reduce our dependence on fossil fuels. Yet many still believe going

green means compromising on home comforts. Building science expert Mark LaLiberte's stunning new net-zero home, set amid Arizona's Sonoran Desert just north of Phoenix, proves otherwise. Through the use of cutting-edge construction techniques and a grand coalition of forwardthinking partners and suppliers (including Crestron), Mark has succeeded in creating a desert oasis that combines unparalleled comfort, beauty, and function with true sustainability, healthy living, and structural longevity.

The 3,000-square-foot house (plus 700-square-foot detached casita) boasts uninterrupted views across the Tonto National Forest, whose protected status guarantees the vista won't be spoiled by any future development. Inside, the open plan layout encompasses a living space, dining area, and fully equipped modern kitchen.

The interior exudes calm and comfort with its cool desert colors and wood-paneled ceiling, while floor-to-ceiling glass windows and sliding patio doors bring plenty of daylight inside — as well as those spectacular views. When they're opened, there's a seamless flow between the internal and exterior spaces.

The main building also houses a three-car garage, an office, guest bedroom, and the primary bedroom suite — which opens onto a sunny patio with a spa, infinity pool, and spectacular views of the mountains beyond. The casita, meanwhile, echoes the design of the main house in a fully self-contained guest suite — complete with bedroom, living area, kitchen, bath, and private patio.



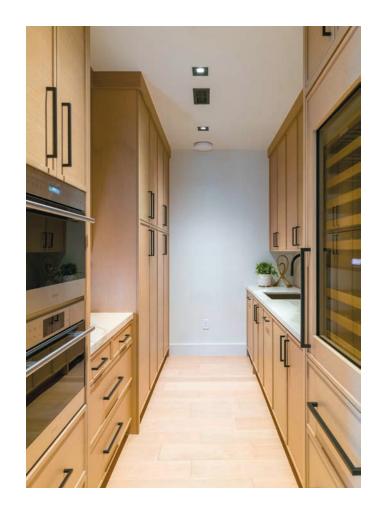
56

The integrated and fully future-ready Crestron Home® operating system lets Mark and his wife control every aspect of the tech in their home via wall-mounted keypads, handheld touch screen remotes, or their smartphones. That includes lighting, shading, security, climate control system, communications, and high-end Crestron multi-room audio that can bathe any space in sumptuous, rich sound. It's also compatible with AirPlay® software, so Mark, his wife, and their guests can easily stream music from their phones and iPad[®] tablets.

Amazingly, the home stays cool in the scorching desert heat without costing a cent in energy. Over the course of a year, the house's discreet bank of roof-mounted solar panels generates as much electricity as the property uses, storing any excess in backup batteries or feeding it back into the grid. This almost unbelievable level of energy efficiency is a result of the innovative construction techniques and materials used, and the tight integration of sustainable function and design elements — not to mention the expertise and passion of Mark himself.

Building technician on a mission

As co-founder and president of Denver-based consultancy and training firm Construction Instruction, Mark has dedicated over 35 years to spreading best practices in the building industry.







AMAZINGLY, THE HOME STAYS COOL IN THE SCORCHING DESERT HEAT WITHOUT



When it came to creating his own home, he was determined to use the project to showcase the way forward for sustainable, healthy, and luxurious living. "People think an energy-efficient house has to be an ugly thing with few windows and some goofy windmill on the roof, but beauty and aesthetics are critical when it comes to creating homes that people actually want to live in," he says.

After securing the plot, Mark hired Minneapolisbased PKA Architecture to draw up the initial plans, before handing them on to Scottsdale-based consulting architect Scott Carson of Cosan Studio. Scott had the local expertise needed to refine the plans so they met the specific demands of building a net-zero home in the Arizona desert. This essentially meant fully cocooning the house in super-insulating materials, while still ensuring it would remain light, cool, and airy. Every aspect of the project was conceived with sustainability and energy efficiency in mind — including properly orienting the building to maximize north and south exposure and including generous roof overhangs to shade glazed walls and doors from the extremes of the Arizona sun.





ODUDE ADUV BALL MOODE STUDIO

EVERY ASPECT OF THE PROJECT WAS CONCEIVED WITH SUSTAINABILITY AND ENERGY EFFICIENCY IN MIND.







Constructing the future

Mark selected Scottsdale-based A Finer Touch (AFT) Construction to manage the build, which he knew would involve working with very innovative materials. While these specific materials had been used in previous builds, it marked the first time they were used and designed in unison to achieve net-zero status. These included insulated concrete foam (ICF) blocks, insulated flooring, structural insulated panels (SIPs) for the roof, and a groundbreaking plug-and-play ducting system. Most impressively, they sourced huge, 700-pound triplepaned glass panels for the windows and doors, including a spectacular pivoting glass entrance door. AFT's president Brad Leavitt says, "Being able to build a net-zero home with so much glass is very novel. We were only able to achieve it because of the energy efficiency of the triple-paned glass from Cardinal, which is the same as you'd achieve with an insulated wall constructed from two-by-fours."

Coupled with Crestron automated shading (which has been set up to shield glass walls and doors automatically when the sun is at its most scorching), the house is able to minimize the load on the air conditioning system while also maximizing the use of natural daylight, driving further energy efficiencies in both cooling and lighting.

The house is also airtight and watertight — protecting it from the dusty desert air, insects, and the brief but nonetheless torrential monsoon season. Any air entering the property is filtered and purified. Brad says, "Dust and dirt cause illness and allergies and when you don't have an airtight home it can create health issues."

Mark LaLiberte agrees. "Research in Canada found that air filtration and ventilation in Colorado schools improved children's health and performance significantly.

Your home should be a healthy sanctuary, which means ensuring the air you're breathing is as pure as possible. As well as installing filtration, we only used low-VOC paints and ensured the building would be watertight to prevent any dampness entering that could lead to mold," he says.

An Iconic buzz

Another key partner was Renee Dee, publisher of digital luxury lifestyle magazine *Iconic Life*, who was brought on board at an early stage to help promote the project and recruit other partners and sponsors, among them Crestron. She also recommended K&Q Interiors, who were later selected by Mark to manage the interior design, as well as signing up other firms and individuals she knew could help create a buzz around this truly luxurious sustainable home. "For example, I brought in a number of partners to contribute to the interiors, including Phoenix-based Fuse Living, which specializes in sustainable fabrics and furnishings, and

a fantastic artist named Laura Madden who creates wonderful recycled, re-fashioned art that's now on display in the home to amplify the message of sustainability," she says.

and interviews.

Branding the house as the 'Net-Zero Iconic Home', Iconic Life tracked the build from inception to completion, ensuring as many people as possible got to learn about this important milestone project through regular social media posts, articles, videos, podcasts,

Originally conceived as a 12-month build, AFT first broke ground in April 2021. However, due to extended supplier delays in the wake of the Covid pandemic, the project overran by nine months. "That meant we ended up producing 21 months' worth of content rather than 12, which really gave us the opportunity to tell the story in detail and raise awareness of sustainability and living in a healthy home with incredible air quality, purified water, and energy efficiency," says Renee.

Her tireless promotion of the project has helped to establish AFT's Brad Leavitt and Cason's Scott Carson as thought leaders in sustainable building, which has resulted in them winning further commissions to produce similarly luxurious net-zero homes for other clients. "My personal goal for this project was to provide information, inspiration, and motivation to elevate the conversation around sustainability and healthy living, encouraging others to explore how they can bring it into their own world. Ultimately, if we're all thinking this way it's good for Mother Earth, which is good for everybody," she says.

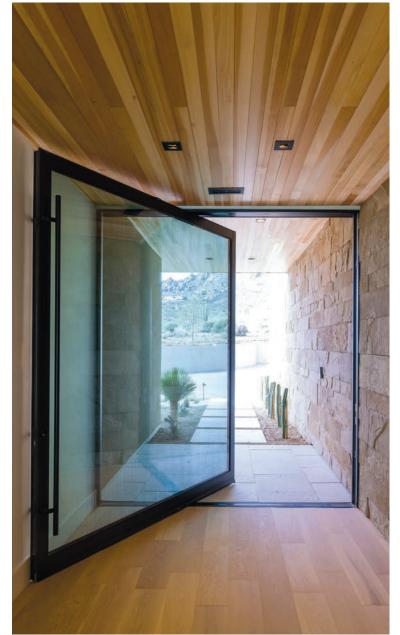
Home for 100 years

Mark and his wife moved into the completed house at the end of 2022 and are delighted with the results. "I built this to demonstrate how beautiful design and high performance can coexist with sustainability. Crestron's technology ties in each element perfectly to fit my dream home," he says.

While it cost considerably more than a standard build, Mark believes the additional investment is essential, and will more than pay for itself.

As he says: "With a project of this complexity, you can't cut corners to save money. You can't retrofit this level of energy efficiency — it must be built in from the outset. This house will last for generations — 100 years or more — so the additional cost isn't much in the scheme of things since it will pay for itself in only a few years. Here in Arizona, because of the need to keep houses cool in the desert heat, people commonly spend \$500-1,000 a month on electricity bills, so in a house like this you save thousands a year in energy costs alone. Ultimately, it's not only better for the planet, but your pocketbook, your health, and of course, the well-being of future generations."

For any readers wanting to delve deeper into the details of this amazing project, *Iconic Life's* content is still online and can be accessed at https://iconiclife.com/net-zero-iconic-home/.







"ULTIMATELY, IT'S NOT ONLY BETTER FOR THE PLANET, BUT YOUR POCKETBOOK, YOUR HEALTH, AND OF COURSE, THE WELL-BEING OF FUTURE GENERATIONS."



BUDAPEST'S MATILD PALACE

with goodwill alone.

walks of life.

BUDAPEST'S MATILD PALACE

CREATING WELCOMING **HOSPITALITY SPACES:** MERGING **TECH** AND LOCAL HERITAGE

Words: Justin Lesperance

It starts with a relationship between the guest and a host with a bit of goodwill from both. If the guest enjoys their experience, they may return or even tell a friend about it. The guest experience is critical to the growth and success of any hospitality venue.

So today, more venues are turning to technology to enhance the guest experience beyond what's possible

The hospitality industry is faced with many unique challenges. That's no surprise since venues in this space hold the significant responsibility of welcoming travelers from all

As a representative of the local culture, these venues are tasked with showcasing what each location has to offer while providing the comfort and types of modern amenities society has come to expect. And ideally, it leaves a good impression, so guests decide to return.

Technology shouldn't detract from the venue's novelties but allow them to shine even brighter.

Take an inside peek at these three world-class hospitality venues to see how technology enhances the guest experience and ensures the true hospitality values of each location don't go unnoticed (even if the tech does).

Poland's Hotel Bania: Tradition Meets Technology

Our first project takes us to the world of the Highlanders. No, not the car or the 1980s movie — this is a culture that's been around since medieval times in the Podhale region of Poland. Their hardy spirit was shaped by the harsh mountainous environment around them — an environment that threatened survival daily, ultimately creating a culture of neighborly care that is curiously akin to the welcoming nature of the hospitality industry.

"What began as a single-family-run hostel over 65 years ago has evolved into a four-star hotel, ski resort, and conference center nestled at the foot of the Tatra Mountains. Guests travel from around the world to enjoy world-class skiing and the modern amenities that make this resort a mainstay for rest and relaxation."

But two things truly make Hotel Bania a special place to visit — intimacy with nature and the Highlander traditions.

That begs the question; can technology really enhance such a traditional atmosphere without taking away the natural intimacy that guests have enjoyed for years?

While Hotel Bania may be a high-end Highlander haven, it's managed to maintain many traditional Podhale customs. For example, strikingly intricate wood craftsmanship is lavishly displayed throughout the venue.

As you roam the expansive resort and conference center, the custom wood carvings emphasize the area's cultural heritage, from intricate accent moldings to furniture and paneling. Fine wood craftsmanship like this is one of the most defining characteristics of the Highlander culture. Showcasing these traditions throughout the venue is a matter of honor and pride.

The last thing Hotel Bania would want is to integrate modern technologies that detract from the character inspired by the local cultural heritage. This was certainly top of mind when they built their new first-class conference center. And with a little help from Crestron control and media distribution systems, they were able to blend the technology inconspicuously into each space. This gave Hotel Bania the modern edge without sacrificing their Podhale pride.

Now, this system provides the hotel staff and guests with an extremely intuitive user experience for situations like automated room configurations and connecting to audio, video, and lighting zones. Even first-time visitors can easily control what content is being displayed and where.

And the best part is visitors can enjoy the power of this state-of-theart technology without sacrificing the traditional awe-inspiring design and experience that makes Hotel Bania just as magical a place to stay as it has been since the peak of the Highlander era.

Two things truly make Hotel Bania a special place to visit – intimacy with nature and the Highlander traditions.











HOTEL BANIA

Budapest's Matild Palace: Hungarian Heritage, High-Tech Hospitality

Our next project takes us to the spa capital of the world, also the capital of Hungary — Budapest.

Enter through the great city of Budapest over the Elisabeth Bridge and you'll be greeted by a majestic view of two towering structures. On the west side of the boulevard sits the Grand Hotel Royal, a vacant structure, once serving as a luxurious hotel hosting a long list of royal guests and celebrities, including the emperor of Austria and American actor John Wayne. Now, it sits in disrepair, an aged shadow of its former self, abandoned by time.

Juxtaposed across the street, as if looking into a mirror that reflects into the future, sits its almost identical sister structure — the newly renovated and technologically upgraded Matild Palace.

Two hotels. One a reminder of the destruction of war, the other a beacon of renewal and advancement. But both buildings still serve as grand time capsules, rich with Hungarian heritage and the novelty of the luxuries offered by these magical social hubs during the Belle Epoque era.

One of the challenges that the Matild Palace faced during renovations was maintaining that capsule of Hungarian heritage while also bringing a new kind of luxury into the building — the luxury of modern technology.

With builders and integrators bumping elbows while roughing in this project, Crestron technology often answered many of the construction curveballs such as how to automate the control of a custom glass bar top. And with building regulations under UNESCO posing unique challenges, the integration team at C.E.H. Kft. deserves a big tip of the hat for working some real magic and pulling it off.

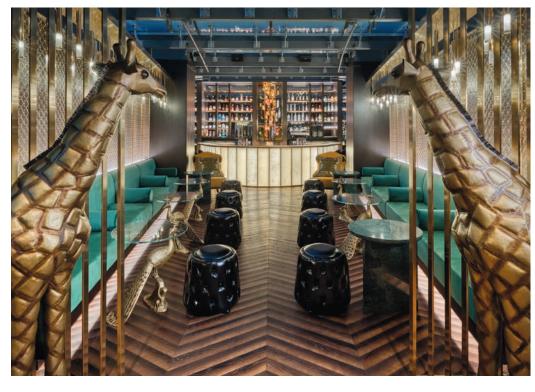






The tech goes beyond controlling gear; it's made the day-to-day for hotel staff much more manageable.



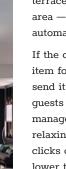


MATILD PALACE





Now, all AV controls for their multifunctional spaces — including a restaurant, bar, winter bar, outdoor terrace, cabaret, and conference area — are powered by Crestron automation technology.









If the chef wants to add a new menu item for dinner, they can instantly send it to overhead displays to let guests know. If the dining room manager wants to create a more relaxing environment, within a few clicks on a portable device they can lower the shades, add an orange warmth to the lights and dim them by section. If a business conference of 100 attendees just left yesterday and the room is booked for a group of 15, hotel staff can easily create a more intimate meeting

space with the push of a button to rearrange entire walls. All of this, and more, is possible on a single, automated system.

This is no one-off retail space install; it took months of planning, product research, spec swaps, and system customization for a dozen unique areas. There is no cookiecutter solution here. Only the finest designers and technicians can pull off a feat of this caliber.

But the tech goes beyond controlling gear; it's made the day-to-day for hotel staff much more manageable. As hotel manager Selím Ölmez puts it, "Thanks to the flexibility of the system, we can use our mobile devices and monitor and adjust our systems through an innovative app."

Imagine that. A hotel from the "Golden Era" — the early days before household televisions, tunable radios, and cornflakes cereal — now employs tech that is wirelessly controlled from a device that fits in our pockets. A tasteful marriage of cultural heritage and modern technology.

Amman, Jordan's Ritz-Carlton: Tech Excellence in Hospitality

The story of Jordan dates to the Bronze Age. That's over 5,000 years ago. The latest technology from this time was the move from stone tools to metal. It's hard to even imagine the rich and captivating history that has unfolded in this Middle Eastern country.

This rich cultural heritage is a significant point of pride for the people of Jordan, people who share many of the core values found in hospitality — such as kindness, welcoming, and warmth.

When this famously luxurious Ritz Carlton branch — located in the capital city of Amman — was ready to update and uplift the guest experience, local integrator Luminous Technology needed top-of-theline technology to shine a spotlight on the hotel's Middle Eastern values.

At first glance, it might be daunting to approach a design and integration project at two separate 20-story buildings with over 60,000 sq meters of space, 228 guest rooms, and 90 private homes. But Luminous Technology already had a reputation for tackling these types of mega projects. And this time they were able to tap into the existing system while adding in some shiny new Crestron solutions to create a scalable and overthe-top guest experience.

In the 90 private homes of The Residence, the goal was to create a space for each occupant to truly customize and make it feel like home. Typically, this level of advanced customization would mean having 90 conversations with 90 different clients to create 90 different system designs with possibly hundreds of unique devices and components. By all accounts, this should have been a massive undertaking. Fortunately, the Luminous Technology team had an ace up their sleeve. A solution that allows each occupant to customize the look and feel of their home without compromising on their individuality, taste, style, and comfort preferences. All of this, with a single, simple solution — the Crestron Home® platform.

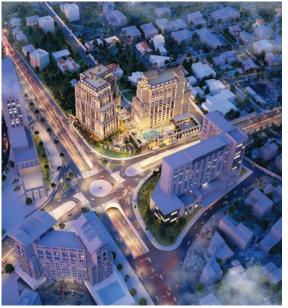


Residents can control lighting, air conditioning, and curtains, as well as the built-in speakers, whether they are home or away. Just a simple click can open a world of comfort and expression. Pre-configured scenes, reminiscent of popular dystopian movies, including "All On" and "All Off" commands and user-customizable presets, give the imagination full reign over the ambiance for any event — from "Party" to "Relax." And for those who still prefer the familiar wall controller, each home features keypads for custom control that look amazing with any décor.

But let's talk about the finer details. Luminous Technology wired each of the 90 homes to support motorized shades for all window locations. Each home also offers support for the addition of in-ceiling speakers, wireless audio, voice commands, and unlimited personalization.

They did a lot of extra planning, spec'ing, installing, and testing just in case someone wanted to add on later. Residents can just decide one day to add some additional speakers to make movie night epic, and BOOM — world-class, elegant in-ceiling speakers ready to take you on a cinematic journey.

It's an unheard-of perk when buying a new home, and it's all powered, processed, and pain-free thanks to



Luminous Technology, The Residence, and intelligent home solutions.

Fulfilling a Noble Mission

The right technology is different for every space and every hospitality venue requires unique solutions. The best solutions are adaptable, customizable, and fully equipped to create an experience that aligns with what matters to the individual venue — things like history, tradition, culture, or diversity.

Technology isn't the star of these stories. It's more like a supporting



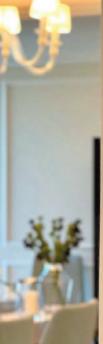
RITZ-CARLTON, AMMAN, JORDAN

character — there to uplift and help carry out the main mission of these hospitality venues. A simple and noble mission — to be hospitable.

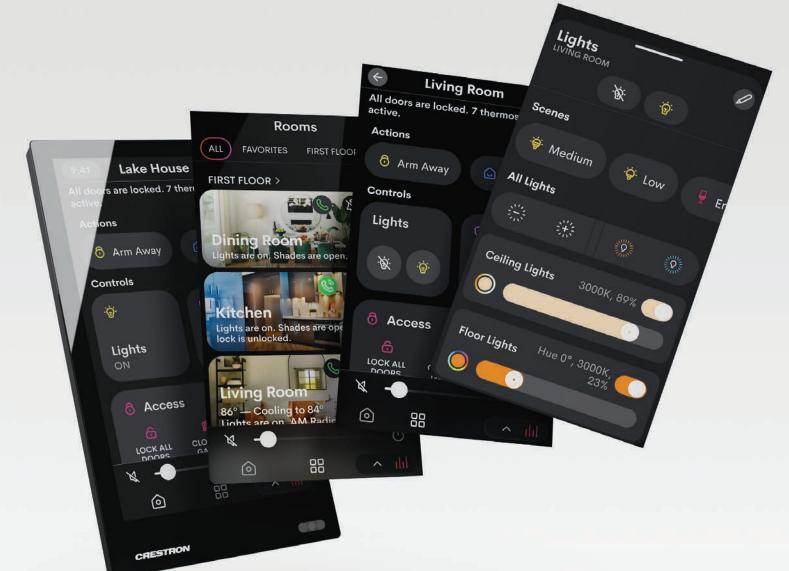
The impact of the hospitality industry can have major implications on things like global business and cultural perception. It's amazing how far an open door and a little goodwill can go. Add a bit of modern tech into that mix, and you've got a tasty welcome cocktail that leaves guests feeling better than they did before arriving.

Because at the end of the day, we can all make the world better together. \blacksquare









OS 4 gives you more

New Crestron Home® OS 4 delivers even more of what you asked for. A more intuitive, fluid, and refined UI. More personalization. More entertainment everywhere. More ways to control and light your home. More than ever, it's *the* platform for an extraordinary smart home experience.

Learn more at crestron.com/home





All brand names, product names, and trademarks are the property of their respective owners. Certain trademarks, registered trademarks, and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Crestron disclaims any proprietary interest in the marks and names of others. Crestron is not responsible for errors in typography or photography. ©2023 Crestron Electronics, Inc.